

# Work Order ID 64934

Tuesday, January 04, 2011 10:45:46 AM



Page 1

Item ID: D206-558-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/7/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: *MF*

Date: *10-11-04*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
IIN D206-558	Rev C								

100		0.00							
	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Photocopy bluefile and type labels as per PPP D206-558-041 CHG008								

*Sulobos*

*OK for BG 11/01/05*

110		0.00							
	Small Fab								
Small Fab	Memo	0.00							
Small Fab	Assemble as per Dwg D206-558								

*= 7 m-h 11/01/05*

*(IX)*

120		0.00							
	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									

*Sulobos*  
*(single mirror)*

*(IX)*

**Work Order ID 64934**

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Item ID: D206-558-041

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Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/7/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

125

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

*1/4/10/05* *(Signature)*

130

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

*8/1/10/05**(Signature)*

140

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-558-041

Location: \_\_\_\_\_

PPP Rev: *8*

*1/4/10/05* *(Signature)*

**Work Order ID 64934**

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Item ID: D206-558-041

Accept

Setup Start

Revision ID:

Stop

Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 1/7/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

CK 11/01/05

U 11/01/05

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Work Order ID: 64934



Parent Item: D206-558-041



Parent Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011

Required Date: 1/7/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP F02.09.19 Re-format; Incorporated D2065 KJ  
 IPP Rev:G 08-05-14 now @ chg006/ add D3778-1 per ECN1171 DD  
 verified:ec  
 IPP Rev:H 08-08-19 now @ chg 007 DD verified by:ec IPP Rev:I  
 10.03.17 add pick kit DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3-4A

Purchased

No

125

Each

1,001.000

4

4

Bolt

Location

Loc Qty

Loc Code

ST350

1001

104214

12

104291

300

104322

189

104374

200

104625

300

m114322

AN526-1032R9

Purchased

No

125

Each

162.0000

4

4

Screw

Location

Loc Qty

Loc Code

ST328

162

111758

11

113928

1

114382

50

115422

100

m114382

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 64934

Parent Item: D206-558-041

Parent Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011

Required Date: 1/7/2011

Start Qty: 1.00

Required Qty: 1.00

AN960JD10 NAS1149D0363J Purchased No



Washer

110 Each 8.0000 4 4



SB 11/01/05

## Location

## Loc Qty

## Loc Code

ST  
107715  
ST335  
105792

6  
6  
2  
2  
H115622

4

S AN960JD10E NAS1149D0332J Purchased No



Washer

D2011-101



6" Mirror

Manufactured No

125 Each 0.0000 6 6



6

M116441

SB

Manufactured No

110 Each 35.0000 1 1



1

SB 11/01/05

## Location

## Loc Qty

## Loc Code

ST227  
61742  
ST257  
64036

1  
1  
34  
34

110 Each 35.0000 2 2



2

SB 11/01/05

D2052 Manufactured No



Mounting Bracket

## Location

## Loc Qty

## Loc Code

ST005  
56290  
59809

35  
8  
27

2

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Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Work Order ID: 64934

Parent Item: D206-558-041

Parent Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011

Required Date: 1/7/2011

Start Qty: 1.00

Required Qty: 1.00

D2053

Manufactured No

125

Each

25.0000

1

1 ✓



Mounting Bracket

Location

Loc Qty

Loc Code

ST005

25

58395

25

D2054

Manufactured No

110

Each

48.0000

2

2



Bushing

Location

Loc Qty

Loc Code

ST005

48

56291

1

58392

17

61834

30

D2055

Manufactured No

110

Each

24.0000

1

1



Clamp

Location

Loc Qty

Loc Code

ST005

24

55726

3

58393

21

D2056

Manufactured No

110

Each

14.0000

1

1



Bell Crank

Location

Loc Qty

Loc Code

ST006

14

45542

5

61705

9

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 64934

Parent Item: D206-558-041

Parent Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011

Required Date: 1/7/2011

Start Qty: 1.00

Required Qty: 1.00

D2057

Manufactured No

110

Each

21.0000

1

1



Plug

Location

Loc Qty

Loc Code

ST006

~~B-57698~~

1

59215

1

ST007

20

60880

20

D2065

Manufactured No

110

Each

15.0000

1

1



Arm

Location

Loc Qty

Loc Code

ST229

15

60881

5

61381

10

D2067

Manufactured No

125

Each

33.0000

1

1



Connector

Location

Loc Qty

Loc Code

ST006

33

61895

33

D2071

Manufactured No

125

Each

0.0000

1

1



Cable Assembly

D3778-1

Manufactured No

125

Each

14.0000

1

1



Bracket

Location

Loc Qty

Loc Code

ST227

14

56316

14

SB 11/01/05

~~1~~

SB 11/01/05

1

B

61895

SB 201

11/01/05

56316

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 64934

Parent Item: D206-558-041

Parent Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011

Required Date: 1/7/2011

Start Qty: 1.00

Required Qty: 1.00

MS21042L3 Purchased No

110 Each

1,762.000 2 2



Nut



SB 11/01/05

Location

Loc Qty

Loc Code

ST300

1762

114784

9

115835

849

116373

4

116391

900

2

MS21042L3 Purchased No

125 Each

1,762.000 2 1



Nut



11/01/05

Location

Loc Qty

Loc Code

ST300

1762

114784

9

115835

849

116373

4

116391

900

11/05/05

MS21919-DG5 Purchased No

125 Each

58.0000 2 2



Clamp



11/01/05

Location

Loc Qty

Loc Code

ST306

58

114988

14

115698

44

11/4/08

MS27039-I-18 Purchased No

110 Each

139.0000 2 2



Screw



SB 11/01/05

Location

Loc Qty

Loc Code

ST292

139

113845

39

115589

100

2

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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# Picklist Print

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Work Order ID: 64934



Parent Item: D206-558-041



Parent Item Name: Single Cargo Mirror Assembly

Start Date: 1/4/2011

Required Date: 1/7/2011

Start Qty: 1.00

Required Qty: 1.00

MS35489-9

Purchased

No

125

Each

80.0000

1

1



Grommet



*Handwritten signature and date 1/4/01/05*

Location

Loc Qty

Loc Code

ST296

80

107376

9

109371

71

M107376

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

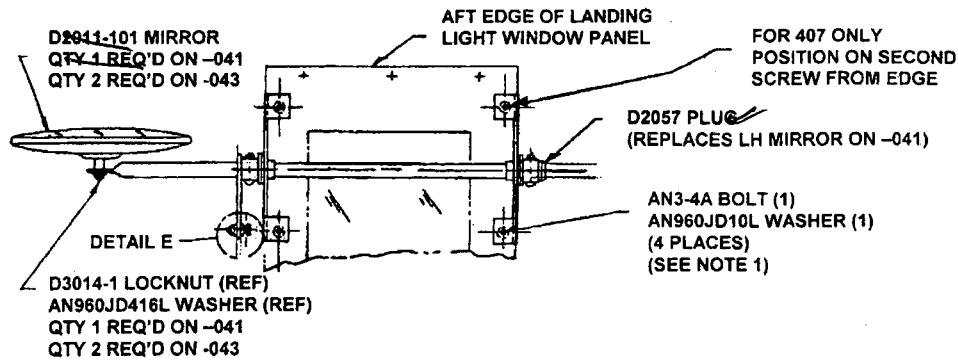


Figure 3: - View C: Looking Down on Mirror Installation  
(D206-558-041 Mirror Shown)

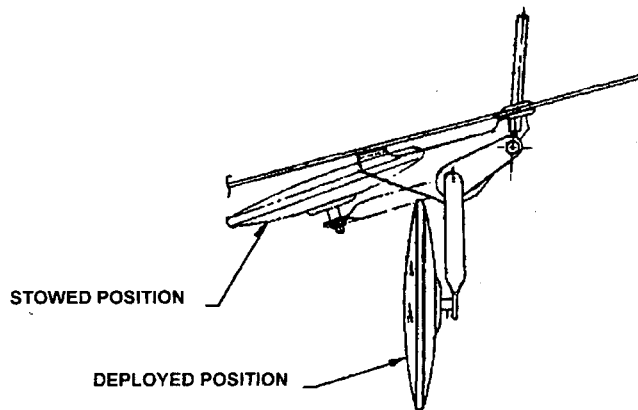


Figure 4: - Detail D: Looking from Side on Mirror Installation  
(D206-558-041/-043 Mirror Shown)

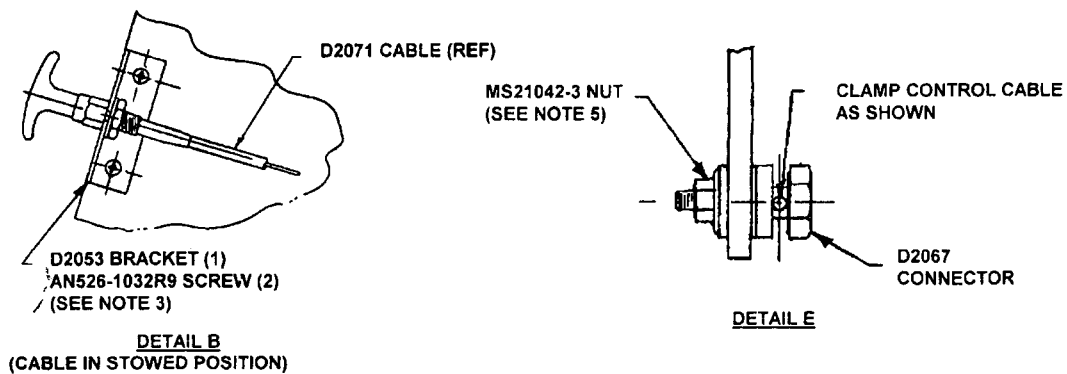


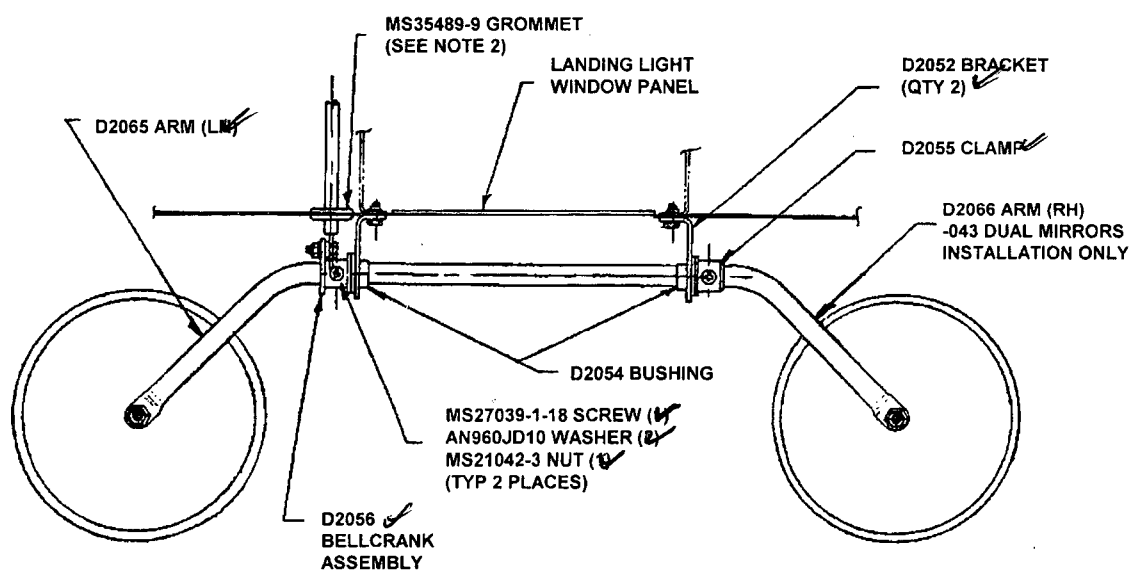
Figure 5: - Details B and E on Mirror Installation  
(D206-558-041/-043 Mirror Shown)



### 3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill  $\varnothing 0.125"$  (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to  $\varnothing 0.563"$  (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped



**Figure 2: – View A: Looking Aft.  
(D206-558-043 Mirror Shown)**

FROM THIS POINT FORWARD, CUSTOMERS SHOULD ORDER D407-558-045/-047 IN LIEU OF D206-558-041/-043 WHEN PROCURING SINGLE/DUAL MIRRORS FOR BHT 407 MODELS. AMEND SECTIONS 4.0 AND 5.0 OF INSTALLATION INSTRUCTIONS D206-558 REV. C OR EARLIER AND 25.3 AND 25.4 OF ICA-D206-558 REV. 0 AS FOLLOWS:

REFERENCE

4.0 WEIGHT AND BALANCE (D206-558 REV. C OR EARLIER)

25.3 WEIGHT AND BALANCE (ICA-D206-558 REV. 0)

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041	2.4 lb	+5.0 in	+12.0 in-lb	+14.8 in	+35.5 in-lb
Bell 206A/B/L/L1/L3/L4	1.09 Kg	+0.13 m	+0.14 m-Kg	+0.38 m	+0.41 m-Kg
D206-558-043	3.0 lb	0.0 in	0.0 in-lb	+14.8 in	+44.4 in-lb
Bell 206A/B/L/L1/L3/L4	1.36 Kg	0.0 m	0.0 m-Kg	+0.38 m	+0.52 m-Kg
D407-558-045	2.4 lb	+5.0 in	+12.0 in-lb	+14.8 in	+35.5 in-lb
Bell 407	1.09 Kg	+0.13 m	+0.14 m-Kg	+0.38 m	+0.41 m-Kg
D407-558-047	3.0 lb	0.0 in	0.0 in-lb	+14.8 in	+44.4 in-lb
Bell 407	1.36 Kg	0.0 m	0.0 m-Kg	+0.38 m	+0.52 m-Kg

REFERENCE UN

5.0 PARTS LIST (D206-558 REV. C OR EARLIER)

25.4 PARTS LIST (ICA-D206-558 REV. 0)

Qty -041-	Qty -043	Qty -045	Qty -047	Part Number	Description
X				D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X			D206-558-043	DUAL CARGO MIRROR ASSEMBLY
		X		D407-558-045	SINGLE CARGO MIRROR ASSEMBLY
			X	D407-558-047	DUAL CARGO MIRROR ASSEMBLY
2	2	2	2	D2011-101	MIRROR ASSEMBLY
2	2	2	2	D2052	BRACKET
1	1	1	1	D2053	BRACKET
2	2	2	2	D2054	BUSHING
1	1	1	1	D2055	CLAMP
1	1	1	1	D2066	BELLCRANK ASSEMBLY
1	1	1	1	D2057	PLUG
1	1	1	1	D2065	ARM
1	1	1	1	D2066	ARM
1	1	1	1	D2067	CONNECTOR
1	1	1	1	D2071	CABLE ASSEMBLY
1	1	1	1	D2071-3	CABLE ASSEMBLY
1	1	1	1	D3074-1	* LOCKNUT
1	1	1	1	D3778-1	BRACKET
4	4	4	4	AN3-4A	BOLT
4	4	4	4	AN526-1032R9	SCREW
2	2	2	2	AN960JD416L	* WASHER
4	4	4	4	AN960JD10	WASHER
6	6	6	6	AN960JD10L	WASHER
3	3	3	3	MS21042-3	NUT (or MS21042L3)
2	2	2	2	MS21919DG5	CLAMP
2	2	2	2	MS27039-1-18	SCREW
1	1	1	1	MS35489-9	GROMMET
1	1	1	1	MS35489-67	GROMMET

\* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 08.12.04  
CERT. NO.: SH92-17  
ISSUE NO.: 7

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		DSI 9436	SHEET 2 OF 2
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DE APPR.		CABLE CHANGE	NTS
DATE 08.12.04		COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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